

# T353-YL02 BRASS (40 LB BXS)

### 1. PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAME:** T353-YL02 BRASS (40 LB BXS) **PRODUCT USE: Industrial Powder Coating** 

**MANUFACTURER** 24 HR. EMERGENCY TELEPHONE NUMBER

Cardinal Paint and Powder CHEMTREC (US Transportation): (800)424-9300 **CHEMTREC (International Transportation)**: (202)483-7616 1329 Potrero Ave

S. El Monte, CA, 91733 WEB: WWW.CARDINALPAINT.COM 626 444-9274

### 2. HAZARDS IDENTIFICATION

### **PICTOGRAMS:**



**SIGNAL WORD: DANGER** 

## **HAZARD STATEMENTS:**

H412 Harmful to aquatic life with long lasting effects.

H340 May cause genetic defects.

H351 Suspected of causing cancer.

H317 May cause an allergic skin reaction.

H372 Causes damage to organs through prolonged or repeated exposure.

H318 Causes serious eye damage.

### PRECAUTIONARY STATEMENTS:

P201 Obtain special instructions before use.

P260 Do not breathe dust.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P202 Do not handle until all safety precautions have been read and understood.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	Weight %	CAS Number	
1,3,5-Triglycidyl Isocyanurate	1% - 5%	2451-62-9	
Copper	1% - 5%	7440-50-8	
Zinc	1% - 5%	7440-66-6	

### 4. FIRST AID MEASURES

### Description of first aid measures.

EYE CONTACT: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center or doctor/physician.



# **SAFETY DATA SHEET**

**ISSUED:** 8/28/2018 **REFERENCE:** YL02-T353

**SKIN CONTACT:** Remove affected clothing and wash all exposed area with mild soap and water, followed by warm water rinse. Wash with plenty of soap and water. If skin irritation or rash occurs: Wash with plenty of soap and water. Get medical advice/attention. Wash contaminated clothing before reuse. Brush off loose particles from skin. Immerse in cool water/wrap in wet bandages.

**INGESTION:** Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention. Call a Poison Center or doctor/physician if you feel unwell

**INHALATION:** Allow Victim to breathe fresh air. Allow victim to rest. Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a Poison Center or doctor/physician if you feel unwell

Most important symptoms and effect, both acute and delayed: Symptoms/Injuries: May cause genetic defects. Causes damage to organs. - After Inhalation: Danger of serious damage to health by prolonged exposure through inhalation. Harmful if inhaled. May cause an allergic skin reaction. May cause cancer by inhalation. - After Eye Contact: Causes serious eye damage. - After Ingestion: Swallowing a small quantity of this material may result in serious health hazard. Indication of any immediate medical attention and special treatment needed: No additional information available.

### 5. FIRE FIGHTING MEASURES

SUITABLE EXTINGUISHING MEDIA: Foam, alcohol foam, dry chemical, carbon dioxide, water fog or sand.

UNSUITABLE EXTINGUISHING MEDIA: Do not use heavy water stream.

**FIRE FIGHTING PROCEDURE:** Firefighting instructions: Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering the environment.

Protection during firefighting: Firefighters should wear full protective gear. Do not enter fire area without proper protective equipment, including self-contained breathing apparatus with full face piece operated in pressure demand or other positive pressure modes.

UNUSUAL FIRE AND EXPLOSION HAZARD: This product is stable at normal handling and storage conditions.

## **6. ACCIDENTAL RELEASE MEASURES**

**PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES :** General measures: Remove ignition sources. Use special care to avoid static electric charges. No smoking.

FOR NON-EMERGENCY PERSONNEL: For non-Emergency procedures: Evacuate unnecessary personnel.

**FOR EMERGENCY RESPONDERS :** Protective equipment : Equip cleanup crew with proper protection. - Emergency procedures : Ventilate area.

**ENVIRONMENTAL PRECAUTIONS:** Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public water. Avoid release to the environment.

**METHODS AND MATERIAL FOR CONTAINMENT AND CLEAN UP:** On land, sweep or shovel into suitable containers,. Minimize generation of dust.

### 7. HANDLING AND STORAGE

**PRECAUTIONS FOR SAFE HANDLING:** Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when you are leaving work. Provide good ventilation in process area. Use only in well ventilated areas. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Eliminate all ignition sources if safe to do so. Avoid breathing dust, fumes and/or vapors.

Hygiene measures: Wash Skin thoroughly after handling.

**CONDITIONS FOR SAFE STORAGE, INCLUDING INCOMPATIBILITIES:** Avoid heat sources and direct sunlight. Store in a dry place. Protect from moisture. Keep container closed when not in use. Keep only in the original container in a cool well ventilated place away from heat, ignition sources and direct sunlight.

Incompatible products: Strong bases. Strong acids.

Incompatible materials: Source of ignition. Direct sunlight.



### 8. EXPOSURE CONTROLS\PERSONAL PROTECTION

1,3,5-Triglycidyl Isocyanurate(2451-62-9)				
ACGIH TLV (Threshold Limit Value)	TWA (Time Weighted Average)	0.05 mg/m3 8 hours		
2-Mercaptobenzothiazole(149-30-4)				
USA WEEL	(WEEL) TWA	5 mg/m3		
Amorphous Silica(112926-00-8)		-		
USA OSHA	USA OSHA TWA (Table Z-1)	6 mg/m3		
USA OSHA	USA OSHA TWA (Tabla Z-3)	20 Million particals per cubic foot.		
USA NIOSH	USA NIOSH TWA (REL)	6 mg/m3		
Copper(7440-50-8)				
ACGIH TLV (Threshold Limit Value)	TWA (Time Weighted Average)	1 mg/m3 8 hours		
NIOSH REL (Recommended Exposure	TWA (Time Weighted Average)	1 mg/m3 10 hours		
Limit)				
OSHA PEL (Permissible Exposure Limit)	TWA (Time Weighted Average)	1 mg/m3 8 hours		
Iron Oxide(1309-37-1)				
USA ACGIH	USA ACGIG (TLV) TWA	5 mg/m3		
USA OSHA	USA OSHA (OEL) TWA Table Z-1	15 mg/m3		
USA NIOSH	USA NIOSH (REL) TWA	5 mg/m3		
Mica(12001-26-2)				
ACGIH TLV (Threshold limit Value)	TWA (Time Weighted Average)	3mg/m3 (Respirable Fraction) 8 hours		
OSHA PEL (Permissible Exposure Limit)	Ceiling	20 mppcf		
NIOSH REL (Recommende Exposure	TWA (Time Weighted Average)	3mg/m3 (Respirable Fraction)		
Limit)				
Silicon Dioxide(7631-86-9)				
USA NIOSH	USA NIOSH TWA (REL)	6 mg/m3		
USA OSHA	USA OSHA TWA (Table Z-3)	20 mppcf		

## PERSONAL PROTECTIVE EQUIPMENT

**RESPIRATORY PROTECTION:** Wear approved dust mask.

**HAND PROTECTION:** Wear protective gloves.

**EYE PROTECTION:** Chemical goggles or safety glasses.

**SKIN AND BODY PROTECTION:** Wear suitable protective clothing.

WORK HYGIENIC PRACTICES: When using do not eat or drink. When using do not smoke. Wash hands before breaks and at the end of workday.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	:	Solid
Melting point	:	55 - 90 deg C
Flash point	:	No data available.
Lower explosion limit	:	10 g/m <sup>3</sup>
Upper explosion limit	:	70 g/m <sup>3</sup>
Density	:	1.2801
Solubility	:	No data available.
Autoignition temperature	:	No data available.
Decomposition temperature	:	No data available.

## 10. STABILITY AND REACTIVITY

**REACTIVITY:** This product is stable at normal handling and storage conditions.

**CHEMICAL STABILITY:** Stable under normal conditions.

**CONDITIONS TO AVOID:** Direct sunlight. Extremely high or low temperatures.

**INCOMPATIBLE MATERIALS:** Avoid contact with strong oxidizing agents.



HAZARDOUS DECOMPOSITION PRODUCTS: Fume. Carbon monoxide. Carbon dioxide.

# 11. TOXICOLOGICAL INFORMATION

1,3,5-Triglycidyl Isocyanurate(2451-62-9)	
Acute toxicity - LD50 - oral - rat	100 - 200 mg/kg
Acute toxicity - LC50 - inhalation - rat -	> 650 mg/m3
male - 4 h	
Acute toxicity - LD50 - Dermal - rat- male	> 2000 mg/kg
& female	
Skin irritation - rabbit	Mild skin irritation - 24 hours
Eye irritation - rabbit	Severe eye irritation
Respiratory or skin sensation -	May cause sensitization by skin contact
Maximization test - guinea pig	
Germ cell mutagenicity	In vivo tests showed mutagenic effects
Germ cell mutagenicity - AMES test - S.	Positive
typhimurium  Germ cell mutagenicity - AMES test -	Positive
mouse - male	Positive
IARC	No component of this product present at levels greater than or equal to
17110	0.1% is identified as a probable, possible or confirmed human carcinogen
	by IARC
ACGIH	No component of this product present at levels greater than or equal to
	0.1% is identified as a carcinogen or potential carcinogen by ACGIH
NTP	No component of this product present at levels greater than or equal to
	0.1% is identified as a known or anticipated carcinogen by NTP
OSHA	No component of this product present at levels greater than or equal to
Demanduative toxicity	0.1% is identified as a carcinogen or potential carcinogen by OSHA
Reproductive toxicity	No data available No data available
Specific target organ toxicity - single exposure	NO data avallable
Specific target organ toxicity - repeated	No data available
exposure	The data available
Aspiration hazard	No data available
Additional information	To the best of our knowledge, the chemical, physical, and toxicological
	properties have not been thoroughly investigated
2-Mercaptobenzothiazole(149-30-4)	
Acute toxicity - LD50 - oral - male and	3800 mg/kg
femal rat	1000
Acute toxicity - LC50 - inhalation - rat	> 1270 mg/m3
Acute toxicity - LD50 - dermal - male and	> 7940 mg/kg
female rabbit Skin irritation - rabbit	No skin irritation / 24 h
Eye irritation - rabbit	No eye irritation / 24 h
Respiratory or skin sensitisation - Buehler	May cause allergic skin reaction
test - guinea pig	They cause unergic skill reaction
Respiratory or skin sensitisation -	May cause allergic skin reaction
Maximisation test - guinea pig	
Germ cell mutagenicity - Ames test - S.	Negative
typhimurium	
Germ cell mutagenicity - male and female	Negative
mouse	
IARC	No component of this product present at levels greater than or equal to
	0.1% is identified as a probable, possible or confirmed human carcinogen
ACGIH	by IARC  No component of this product present at levels greater than or equal to
7.66171	0.1% is identified as a carcinogen or potential carcinogen by ACGIH
NTP	No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen
OSHA	No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA
Reproductive toxicity	No data available
Specific target organ toxicity - single	No data available
exposure	The same of different
Specific target organ toxicity - repeated	No data available
exposure	



Aspiration hazard	No data available
Additional information	Repeated dose toxicity - male and female rat - lowest observed adverse
	effect level - 2500 mg/kg
Additional information	To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated
Amorphous Silica(112926-00-8)	
Acute toxicity	no data available
Acute toxicity: Inhalation	no data available
Acute toxicity: Dermal	no data available
Skin irritation	no data available
Eye irritation	no data available
Respiratory or skin sensation	no data available
Germ cell mutagenicity	no data available
Carcinogenicity: IARC: Group 3:	not classifiable as to its carcinogenicity to humans
ACGIH	no component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH
NTP	no component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP
OSHA	no component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA
Reproductive toxicity	no data available
Specific target organ toxicity - single exposure	no data available
Specific target organ toxicity - repeated exposure	no data available
Aspiration hazard	no data available
Additional information	Amorphous silica is not classified as to its carcinogenicity to humans, however, crystalline silica inhaled in the form of quartz or cristobalite from occupational sources is carcinogenic to humans (Group 1, IARC). Therefore, amorphous silica should be handled as if possessing the same hazards as the crystalline form. To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.
Additional information	Stomach - irregularities - based on human evidence
Copper(7440-50-8)	To 5
LD50 Intraperitoneal - Mouse	3.5 mg/kg
Skin corrosion/irritation	May irritate skin May irritate eyes
Serious eye damage/eye irritation Iron Oxide(1309-37-1)	May Illiate eyes
Acute toxicity	No data available
Acute toxicity - dermal	`No data available
Skin irritation - human	Skin irritation
Eye irritation - human	Moderate eye irritation
Respiratory or skin sensitization	No data available
Germ cell mutagenicity	No data available
Carcinogenicity - rat - subcutaneous	Equivocal tumorogenic agent by RTECS criteria. Tumors at site of appilcation.
Carcinogenicity	This product is or contains a component that is not classifiable as to its carcinogenicity based on its IARC, ACGIH, NTP or EPA classification.
IARC	Group 3: not classifiable as to its carcinogeniciy to humans (diiron trioxide).
NTP	No component of this product present at levels greater than or equal to 0.1% is identified as a kown or anticpated carcinogen by NTP.
OSHA	No component of this product present at levels greater than or equal to 0.1% is identified as ca carcinogen or potential carcinogen by OSHA.
Reproductive toxicity	No data available
Specific target organ toxicity - single exposure	inhalation - may cause respiratory irritation.
Specific target organ toxicity - repeated exposure	No data available
Aspiration hazard	No data available
Additional information	Long term inhalation exposure to iron (oxide fume or dust) can cause siderosis. Siderosis is considered to be a benign pneumoconiosis and does not normally cause significant physiological impairment. Siderosis can be observed on x-rays with the lungs having a mottled appearance., To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.



Mica(12001 26 2)	
Mica(12001-26-2) Routes of entry	Inhalation, ingestion
Toxicity to animals - LD50	Not available
Toxicity to animals - LC50	Not available
Chronic effects on humans	The substance is toxic to lungs, mucous membranes.
Other toxic effects on humans	Hazaroud on case of ingestion, of inhalation. Slightly hazardous in case of
Other toxic effects of flufflatis	skin contact (irritant).
Special remarks on the toxicity to animals	Not available
Special remarks on the chronic effects on	Not available
humans	Not available
Special remarks on other toxic effects on	Nuisance dust.
humans	Traisurice dust.
Pentaerythritol tetrakis(6683-19-8)	
Acute toxicity - LD50 - oral - male rat	> 5000 mg/kg
Acute toxicity - LC50 - inahalation - male	> 1.95 mg/l / 4h
and female rat	
Acute toxicity - LD50 - dermal - male and	> 3160 mg/kg
female rabbit	
Acute toxicity - LD50 - intraperitoneal - rat	> 1000 mg/kg
Skin corrosion - rabbit	No skin irritation - 24 h
Eye irritation - rabbit	No eye irritation
Respiratory or skin sesnsitization - guinea	Does not cause skin sensitization
pig	
Germ cell mutagenicity - Ames test - S.	Negative
typhimurium	-
Mutagenicity - micronucleus test - male	Negative
and female hamster	
IARC carcinogenicity	No component of this product present at levels greater than or equal to
,	0.1% is identified as a probable, possible, or confirmed human carcinogen
	by IARC
ACGIH	No component of this product present at levels greater than or equal to
	0.1% is identified as a carcinogen or potential carcinogen by ACGIH
NTP	No component of this product present at levels greater than or equal to
	0.1% is identified as a known or anticipated carcinogen by NTP
OSHA	No component of this product present at levels greater than or equal to
	0.1% is identified as a carcinogen or potential carcinogen by OSHA
Reproductive toxicity	No data available
Specific target organ toxicity - single	No data available
exposure	
Specific target organ toxicity - repeated	No data available
exposure	
Aspiration hazard	No data available
Silicon Dioxide(7631-86-9)	
Acute toxicity - inhalation	No data available
Acute toxicity - dermal	No data available
Skin irritation	No data available
Eye irritation	No data available
Respiratory or skin sensitisation	No data available
Germ cell mutagenicity	No data available
IARC	Group 3: Not classifiable as to its carcinogenicity to humans (Silicon
100711	dioxide)
ACGIH	No component of this product present at levels greater than or equal to
NITO	0.1% is identified as a carcinogen or potential carcinogen by ACGIH
NTP	No component of this product present at levels greater than or equal to
OCUA	0.1% is identified as a known or anticipated carcinogen by NTP
OSHA	No component of this product present at levels greater than or equal to
Depreductive textains	0.1% is identified as a carcinogen or potential carcinogen by OSHA
Reproductive toxicity	No data available
Specific target organ toxicity - single	No data available
exposure	No deta available
Specific target organ toxicity - repeated	No data available
exposure	No data available
Aspiration hazard	No data available
Additional information	To the best of our knowledge, the chemical, physical, and toxicological
Additional information	properties have not been thoroughly investigated  Stomach irregularities based on human evidence (cilicon dievide)
Additional information	Stomach irregularities based on human evidence (silicon dioxide)
Tris(2,4-ditert-butylphenyl) phosphite(3157)	J-U4-4)



LD50 - oral - male and female rat - Acute	> 6000 mg/kg
Toxicity	
LD50 - dermal - male and female rat	> 2000 mg/kg
Skin irritation - rabbit	No skin irritation / 24 h
Eye irritation- rabbit	No eye irritation / 30 s
Respiratory or skin sensitization - guinea	Does not cause skin sensitization
pig	
Germ cell mutagenicity -Ames test	Negative
(micronucleus test) - male and femae	
hamster	
Carcinogenicity - oral - male and female	No adverse effect has been observed in chronic toxicity tests
rat	
IARC	No component of this product present at levels greater than or equal to
	0.1% is identified as a probable, possible, or confirmed human carcinogen
100711	by IARC
ACGIH	No component of this product present at levels greater than or equal to
NTD	0.1% is identified as a carcinogen or potential carcinogen by ACGIH
NTP	No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen
OSHA	No component of this product present at levels greater than or equal to
USHA	0.1% is identified as a carcinogen or potential carconogen by OSHA
Reproductive toxicity	Not data available
Developmental toxicity - oral - rabbit	No adverse effect has been observed in chronic toxicity tests
Specific target organ toxicity - single	No data available
exposure	No data available
Specific target organ toxicity - repeated	No data available
exposure	
Additional information	Repeated dose toxicity - rat - male and female - oral - No observed
	adverse effect level - >/ 1000 mg/kg
Additional information	No adverse effect has been observed in chronic toxicity tests
Zinc(7440-66-6)	Tax 1 / 11 / 11 / 11 / 11 / 11 / 11 / 11
Acute toxicity - inhalation	No data available
Acute toxicity - dermal	No data available
Skin irritation	No data available
Eye irritation	No data available
Respiratory or skin sensitization	Did not cause sensitization on laboratory animals
Germ cell mutagenicity	No data available
IARC	No component of this product present at levels greater than or equal to
	0.1% is identified as a probable, possible, or confirmed human carcinogen
ACGIH	by IARC  No component of this product present at levels greater than or equal to
ACGIN	0.1% is identified as a carcinogen or potential carcinogen by ACGIH
NTP	No component of this product pressent at levels greater than or equal to
INTE	0.1% is identified as a known or anticipated carcinogen by NTP
OSHA	No component of this product present at levels greater than or equal to
OSITA	0.1% is identified as a carcinogen or potential carcinogen by OSHA
Reproductive toxicity	No data available
Specific target organ toxicity - single	No data available
exposure	
Specific target organ toxicity- repeated	No data available
exposure	
Aspiration hazard	No data available
Additional information	Effects due to ingestion may include; chills, dry throat, sweet taste, fever,
	cough, nausea, vomiting, weakness, contact with eyes or skin may cause
1	irritation

# 12. ECOLOGICAL INFORMATION

1,3,5-Triglycidyl Isocyanurate(2451-62-9)	
Toxicity to fish - static test LC50 - danio	> 77 mg/l - 96 h
rerio (zebra fish)	
Toxicity to daphnia and other aquatic	> 100 mg/l - 24 h
invertebrates - Immobilization - EC50 -	
daphnia magna (water flea)	
Toxicity to algae - growth inhibition - EC50	29 - 30 mg/l - 72 h
- Desmodesmus subspicatus	



Toxicity to bacteria - Respiration inhibition	,
	> 100 mg/l 3 h
- IC50 - Sludge Treatment	
Persistence and degradability -	0.5 - 1% - not biodegradable
biodegradability - aerobic - exposure time:	
44 d	
Bioaccumulative potential	No data available
Mobility in soil	No data available
PBT & vPvB	not available/not required
Other adverse effects	An environmental hazard cannot be excluded in the event of
	unprofessional handling or disposal. Harmful to aquatic life with long
	lasting effects
2-Mercaptobenzothiazole(149-30-4)	
Toxicity to fish - flow-through test - LC50 -	0.73 mg/L / 96 h
rainbow trout	
Toxicity to daphnia and other aquatic	0.71 mg/L / 48 h
invertebrates - immobilization EC50 -	
Daphnia magna (water flea)	
Toxicity to algae - growth inhibition - EC50	0.5 mg/L - 72 h
- green algae	
Persistence and degradability -	1% - not readily biodegradable - exposure time: 28 d
biodegradability - biotic/aerobic	
Bioaccumulative potential -	0.1 mg/L / 42 d
bioaccumulation - carp	
Bioaccumulative potential -	< 0.8
Bioconcentration factor	
Mobility in soil	No data available
PBT and vPvB	Not available/not required
Other adverse effects	An environmental hazard cannot be excluded in the event of
	unprofessional handling or disposal. Very toxic to aquatic life with long
	lasting effects.
Amorphous Silica(112926-00-8)	
Toxicity	no data available
Persistence and degradability	no data available
Bioaccumulative potential	no data available
Mobility in soil	no data available
PBT and vPvB	not available/not required
Copper(7440-50-8)	
Toxicity to fish	mortality LOEC - Oncorhynchus mykiss (rainbow trout - 0.022 mg/l - 96h
Toxicity to daphnia and other invertebrates	mortality NOEC - Daphnia (water flea) - 0.004 mg/l - 24 h
Toxicity to daphnia and other invertebrates	
	EC50 - Daphnia magma (Water flea) - 0.04 - 0.05 mg/l - 48 h
Iron Oxide(1309-37-1)	
Iron Oxide(1309-37-1) Toxicity	No data available
Iron Oxide(1309-37-1)	No data available No data available
Iron Oxide(1309-37-1) Toxicity Persisitence and degradability Bioaccumulative potential	No data available No data available No data available
Iron Oxide(1309-37-1) Toxicity Persisitence and degradability Bioaccumulative potential Mobility in soil	No data available
Iron Oxide(1309-37-1)  Toxicity  Persisitence and degradability  Bioaccumulative potential  Mobility in soil  PBT and vPvB	No data available Not available/not required
Iron Oxide(1309-37-1) Toxicity Persisitence and degradability Bioaccumulative potential Mobility in soil PBT and vPvB Other adverse effects	No data available
Iron Oxide(1309-37-1) Toxicity Persisitence and degradability Bioaccumulative potential Mobility in soil PBT and vPvB Other adverse effects Mica(12001-26-2)	No data available No data available No data available No data available Not available/not required No data available
Iron Oxide(1309-37-1) Toxicity Persisitence and degradability Bioaccumulative potential Mobility in soil PBT and vPvB Other adverse effects Mica(12001-26-2) Ecotoxicity	No data available No data available No data available No data available Not available/not required No data available Not available
Iron Oxide(1309-37-1) Toxicity Persisitence and degradability Bioaccumulative potential Mobility in soil PBT and vPvB Other adverse effects Mica(12001-26-2) Ecotoxicity BOD5 and COD	No data available No data available No data available No data available Not available/not required No data available Not available Not available Not available Not available
Iron Oxide(1309-37-1) Toxicity Persisitence and degradability Bioaccumulative potential Mobility in soil PBT and vPvB Other adverse effects Mica(12001-26-2) Ecotoxicity	No data available No data available No data available No data available Not available/not required No data available Not available Not available Possibly hazardous short term degradation products are not likely.
Iron Oxide(1309-37-1) Toxicity Persisitence and degradability Bioaccumulative potential Mobility in soil PBT and vPvB Other adverse effects Mica(12001-26-2) Ecotoxicity BOD5 and COD Products of biodegradation	No data available No data available No data available No data available Not available/not required No data available Not available Not available Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.
Iron Oxide(1309-37-1)  Toxicity  Persisitence and degradability  Bioaccumulative potential  Mobility in soil  PBT and vPvB  Other adverse effects  Mica(12001-26-2)  Ecotoxicity  BOD5 and COD  Products of biodegradation  Toxicity of the products of biodegradation	No data available No data available No data available No data available Not available/not required No data available Not available Not available Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise. The products of degradation are as toxic as the original product
Iron Oxide(1309-37-1)  Toxicity  Persisitence and degradability  Bioaccumulative potential  Mobility in soil  PBT and vPvB  Other adverse effects  Mica(12001-26-2)  Ecotoxicity  BOD5 and COD  Products of biodegradation  Toxicity of the products of biodegradation  Special remarks on the products of	No data available No data available No data available No data available Not available/not required No data available Not available Not available Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.
Iron Oxide(1309-37-1)  Toxicity  Persisitence and degradability  Bioaccumulative potential  Mobility in soil  PBT and vPvB  Other adverse effects  Mica(12001-26-2)  Ecotoxicity  BOD5 and COD  Products of biodegradation  Toxicity of the products of biodegradation  Special remarks on the products of biodegradation	No data available No data available No data available No data available Not available/not required No data available Not available Not available Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise. The products of degradation are as toxic as the original product
Iron Oxide(1309-37-1)  Toxicity  Persisitence and degradability  Bioaccumulative potential  Mobility in soil  PBT and vPvB  Other adverse effects  Mica(12001-26-2)  Ecotoxicity  BOD5 and COD  Products of biodegradation  Toxicity of the products of biodegradation  Special remarks on the products of biodegradation  Pentaerythritol tetrakis(6683-19-8)	No data available No data available No data available No data available Not available/not required No data available Not available Not available Not available Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise. The products of degradation are as toxic as the original product Not available
Iron Oxide(1309-37-1)  Toxicity  Persisitence and degradability  Bioaccumulative potential  Mobility in soil  PBT and vPvB  Other adverse effects  Mica(12001-26-2)  Ecotoxicity  BOD5 and COD  Products of biodegradation  Toxicity of the products of biodegradation  Special remarks on the products of biodegradation  Pentaerythritol tetrakis(6683-19-8)  Toxicity to fish - static LC50 - zebra fish	No data available No data available No data available No data available Not available/not required No data available Not available Not available Not available Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise. THe products of degradation are as toxic as the original product Not available  > 100 mg/L / 96 h
Iron Oxide(1309-37-1)  Toxicity  Persisitence and degradability  Bioaccumulative potential  Mobility in soil  PBT and vPvB  Other adverse effects  Mica(12001-26-2)  Ecotoxicity  BOD5 and COD  Products of biodegradation  Toxicity of the products of biodegradation  Special remarks on the products of biodegradation  Pentaerythritol tetrakis(6683-19-8)  Toxicity to fish - static LC50 - zebra fish  Toxicity to daphnia and other aquatic	No data available No data available No data available No data available Not available/not required No data available Not available Not available Not available Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise. The products of degradation are as toxic as the original product Not available
Iron Oxide(1309-37-1)  Toxicity  Persisitence and degradability  Bioaccumulative potential  Mobility in soil  PBT and vPvB  Other adverse effects  Mica(12001-26-2)  Ecotoxicity  BOD5 and COD  Products of biodegradation  Toxicity of the products of biodegradation  Special remarks on the products of biodegradation  Pentaerythritol tetrakis(6683-19-8)  Toxicity to fish - static LC50 - zebra fish  Toxicity to daphnia and other aquatic invertebrates - immobilization EC50 -	No data available No data available No data available No data available Not available/not required No data available  Not available  Not available  Not available  Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.  The products of degradation are as toxic as the original product Not available  > 100 mg/L / 96 h
Iron Oxide(1309-37-1)  Toxicity  Persisitence and degradability  Bioaccumulative potential  Mobility in soil  PBT and vPvB  Other adverse effects  Mica(12001-26-2)  Ecotoxicity  BOD5 and COD  Products of biodegradation  Toxicity of the products of biodegradation  Special remarks on the products of biodegradation  Pentaerythritol tetrakis(6683-19-8)  Toxicity to fish - static LC50 - zebra fish  Toxicity to daphnia and other aquatic invertebrates - immobilization EC50 - daphnia magna (water flea)	No data available No data available No data available No data available Not available/not required No data available  Not available  Not available  Not available Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.  The products of degradation are as toxic as the original product Not available  > 100 mg/L / 96 h > 86 mg/L / 24 h
Iron Oxide(1309-37-1)  Toxicity  Persisitence and degradability  Bioaccumulative potential  Mobility in soil  PBT and vPvB  Other adverse effects  Mica(12001-26-2)  Ecotoxicity  BOD5 and COD  Products of biodegradation  Toxicity of the products of biodegradation  Special remarks on the products of biodegradation  Pentaerythritol tetrakis(6683-19-8)  Toxicity to fish - static LC50 - zebra fish  Toxicity to daphnia and other aquatic invertebrates - immobilization EC50 - daphnia magna (water flea)  Toxicity to algae - static EC50 -	No data available No data available No data available No data available Not available/not required No data available  Not available  Not available  Not available  Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.  The products of degradation are as toxic as the original product Not available  > 100 mg/L / 96 h
Iron Oxide(1309-37-1)  Toxicity  Persisitence and degradability  Bioaccumulative potential  Mobility in soil  PBT and vPvB  Other adverse effects  Mica(12001-26-2)  Ecotoxicity  BOD5 and COD  Products of biodegradation  Toxicity of the products of biodegradation  Special remarks on the products of biodegradation  Pentaerythritol tetrakis(6683-19-8)  Toxicity to fish - static LC50 - zebra fish  Toxicity to daphnia and other aquatic invertebrates - immobilization EC50 - daphnia magna (water flea)  Toxicity to algae - static EC50 - Scenedesmus subspicatus	No data available No data available No data available No data available Not available/not required No data available  Not available  Not available  Not available  Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.  The products of degradation are as toxic as the original product Not available  > 100 mg/L / 96 h > 86 mg/L / 24 h  > 100 mg/L / 72 h
Iron Oxide(1309-37-1)  Toxicity  Persisitence and degradability  Bioaccumulative potential  Mobility in soil  PBT and vPvB  Other adverse effects  Mica(12001-26-2)  Ecotoxicity  BOD5 and COD  Products of biodegradation  Toxicity of the products of biodegradation  Special remarks on the products of biodegradation  Pentaerythritol tetrakis(6683-19-8)  Toxicity to fish - static LC50 - zebra fish  Toxicity to daphnia and other aquatic invertebrates - immobilization EC50 - daphnia magna (water flea)  Toxicity to algae - static EC50 - Scenedesmus subspicatus  Toxicity to bacteria - respiration inhibition	No data available No data available No data available No data available Not available/not required No data available  Not available  Not available  Not available Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.  The products of degradation are as toxic as the original product Not available  > 100 mg/L / 96 h > 86 mg/L / 24 h
Iron Oxide(1309-37-1)  Toxicity  Persisitence and degradability  Bioaccumulative potential  Mobility in soil  PBT and vPvB  Other adverse effects  Mica(12001-26-2)  Ecotoxicity  BOD5 and COD  Products of biodegradation  Toxicity of the products of biodegradation  Special remarks on the products of biodegradation  Pentaerythritol tetrakis(6683-19-8)  Toxicity to fish - static LC50 - zebra fish  Toxicity to daphnia and other aquatic invertebrates - immobilization EC50 - daphnia magna (water flea)  Toxicity to algae - static EC50 - Scenedesmus subspicatus  Toxicity to bacteria - respiration inhibition IC50 - sludge treatment	No data available No data available No data available No data available Not available/not required No data available  Not available  Not available  Not available Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.  The products of degradation are as toxic as the original product Not available  > 100 mg/L / 96 h > 86 mg/L / 24 h  > 100 mg/L / 72 h  > 100 mg/L / 3 h
Iron Oxide(1309-37-1)  Toxicity  Persisitence and degradability  Bioaccumulative potential  Mobility in soil  PBT and vPvB  Other adverse effects  Mica(12001-26-2)  Ecotoxicity  BOD5 and COD  Products of biodegradation  Toxicity of the products of biodegradation  Special remarks on the products of biodegradation  Pentaerythritol tetrakis(6683-19-8)  Toxicity to fish - static LC50 - zebra fish  Toxicity to daphnia and other aquatic invertebrates - immobilization EC50 - daphnia magna (water flea)  Toxicity to algae - static EC50 - Scenedesmus subspicatus  Toxicity to bacteria - respiration inhibition IC50 - sludge treatment  Persistence and degradability -	No data available No data available No data available No data available Not available/not required No data available  Not available  Not available  Not available  Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.  The products of degradation are as toxic as the original product Not available  > 100 mg/L / 96 h > 86 mg/L / 24 h  > 100 mg/L / 72 h
Iron Oxide(1309-37-1)  Toxicity  Persisitence and degradability  Bioaccumulative potential  Mobility in soil  PBT and vPvB  Other adverse effects  Mica(12001-26-2)  Ecotoxicity  BOD5 and COD  Products of biodegradation  Toxicity of the products of biodegradation  Special remarks on the products of biodegradation  Pentaerythritol tetrakis(6683-19-8)  Toxicity to fish - static LC50 - zebra fish  Toxicity to daphnia and other aquatic invertebrates - immobilization EC50 - daphnia magna (water flea)  Toxicity to algae - static EC50 - Scenedesmus subspicatus  Toxicity to bacteria - respiration inhibition IC50 - sludge treatment  Persistence and degradability - biodegradability - aerobic	No data available No data available No data available No data available Not available/not required No data available  Not available  Not available  Not available  Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.  The products of degradation are as toxic as the original product Not available  > 100 mg/L / 96 h > 86 mg/L / 24 h  > 100 mg/L / 72 h  > 100 mg/L / 3 h  5% - not biodegradable : exposure time - 28 d
Iron Oxide(1309-37-1)  Toxicity  Persisitence and degradability  Bioaccumulative potential  Mobility in soil  PBT and vPvB  Other adverse effects  Mica(12001-26-2)  Ecotoxicity  BOD5 and COD  Products of biodegradation  Toxicity of the products of biodegradation  Special remarks on the products of biodegradation  Pentaerythritol tetrakis(6683-19-8)  Toxicity to fish - static LC50 - zebra fish  Toxicity to daphnia and other aquatic invertebrates - immobilization EC50 - daphnia magna (water flea)  Toxicity to algae - static EC50 - Scenedesmus subspicatus  Toxicity to bacteria - respiration inhibition IC50 - sludge treatment  Persistence and degradability -	No data available No data available No data available No data available Not available/not required No data available  Not available  Not available  Not available Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.  The products of degradation are as toxic as the original product Not available  > 100 mg/L / 96 h > 86 mg/L / 24 h  > 100 mg/L / 72 h  > 100 mg/L / 3 h



Mobility in soil	No data available
PBT and vPvB	Not available/not required
Other adverse effects	No data available
Silicon Dioxide(7631-86-9)	140 data avaliable
Toxicity	No data available
Persistence and degradability	No data available
Bioaccumulative potential	No data available
Mobility in soil	No data available
PBT and vPvP	Not available/not required
Tris(2,4-ditert-butylphenyl) phosphite(31570	
Toxicity to fish - static LC0 - zebra fish	100 mg/L / 96 h
Toxicity to daphnia and other aquatic	510 mg/L / 24 h
invertebrates - static EC50 - Daphnia	313 mg/2/ 21 m
magna	
Toxicity to algae - static EC50 -	> 75 mg/L / 72 h
Scenedesmus subspicatus	5, ,
Toxicity to bacteria - respiration inhibition	> 100 mg/L / 3 h
IC50 - sludge treatment	3. ,
Persistence and degradability -	6% - not readily biodegradable - exposure: 28 d
biodegradability - aerobic	
Bioaccumulative potential	No data available
Mobility in soil	No data available
PBT and vPvB	not available/not required
Zinc(7440-66-6)	
Toxicity to fish - LC50 - carp	450 ug/L / 96 h
Toxicity to daphnia and other aquatic	0.068 mg/L / 48 h
invertebrates - LC50 - daphnia magna	
Toxicity to daphnia and other aquatic	0.101 - 0.14 mg/L / 7 d
invertebrates - mortality NOEC - daphnia	
Persistence and degradability	The methods for determining the biological degradability are not
	applicable to inorganic substances.
Bioaccumulative potential - algae	5 ug/L / 7 d
Bioaccumulative potential -	466
bioconcentration factor	
Mobility in soil	No data available
PBT and vPvB	Not available/not required
Other adverse effects	An environmental hazard cannot be excluded in the event of
	unproffesional handling or disposal. Very toxic to aquatic life with long
	lasting effects.

# 13. DISPOSAL CONSIDERATIONS

### **WASTE TREATMENT METHODS**

**GENERAL INFORMATION:** No data available.

**DISPOSAL METHOD:** Dispose of in accordance with Local, State, Regional, National and International Regulations.

Ecology - waste materials: Avoid release to the environment.

# ARDINAL SAFETY DATA SHEET

**ISSUED:** 8/28/2018 **REFERENCE:** YL02-T353

### 14. TRANSPORT INFORMATION

### \*CHECK WITH YOUR CARRIER FOR ADDITIONAL RESTRICTIONS THAT MAY APPLY.

**USDOT GROUND** 

**DOT (DEPARTMENT OF TRANSPORTATION)** 

PROPER SHIPPING NAME (DOT): Not Regulated/Not Applicable

**HAZARDS CLASS:** None

UN/NA NUMBER: Not Applicable

**PACKING GROUP:** None

EMERGENCY RESPONSE GUIDE (ERG): Not Applicable

IATA (AIR)

**DOT (INTERNATIONAL AIR TRANSPORTATION ASSOCIATION)** 

PROPER SHIPPING NAME: Not Regulated/Not Applicable

HAZARDS CLASS: Not Applicable UN/NA NUMBER: Not Applicable PACKING GROUP: Not Applicable

**EMERGENCY RESPONSE GUIDE (ERG):** Not Applicable

IMDG (OCEAN)

PROPER SHIPPING NAME: Not Regulated, Not Applicable

HAZARDS CLASS: Not Applicable UN/NA NUMBER: Not Applicable PACKING GROUP: Not Applicable

EMERGENCY RESPONSE GUIDE (ERG): Not Applicable

**MARINE POLLUTANT:** No

SPECIAL PRECAUTIONS: P235 Keep cool.



# **SAFETY DATA SHEET**

**ISSUED:** 8/28/2018 **REFERENCE:** YL02-T353

### 15. REGULATORY INFORMATION

US FEDERAL REGULATIONS
All ingredients are TSCA (Toxic Substance Control Act) listed.

OSHA HAZARDS: Moderate skin irritant, Moderate eye irritant.

**EPCRA - Emergency** 

**CERCLA REPORTABLE QUANTITY** 

**SARA 304 Extremely Hazardous Substances Reportable Quantity:** This material does not contain any components with a section 304 EHS RQ.

## SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)

SARA 311/312 Hazards: Acute Health Hazard, Chronic Health Hazard.

This product contains:	Chemical CAS#
1,3,5-Triglycidyl Isocyanurate	2451-62-9
Copper	7440-50-8
Zinc	7440-66-6

**SARA 313 :** This Product Contains Zinc Powder (CAS 7440-66-6)

This Product Contains Copper Powder (CAS 7440-50-8)

### **CLEAN AIR ACT:**

### INTERNATIONAL REGULATIONS

# CLASSIFICATION ACCORDING TO REGULATION (EC) No. 1272/2008 (CLP):

Eye Dam. 1 H318 Causes serious eye damage
Skin Sens. 1 H317 May cause an allergic skin reaction
Muta. 1B H340 May cause genetic defects
Carc. 2 H351 Suspected of causing cancer

STOT RE 1 H372 Causes damage to organs through prolonged or repeated exposure

Aquatic Chronic 3 H412 Harmful to aquatic life with long lasting effects

### **NATIONAL REGULATIONS**

## National Regulations Key

~ Indicates a chemical listed by IARC as a possible carcinogen.

^ Indicates a chemical listed by IARC as carcinogenic to humans.



# **SAFETY DATA SHEET**

**ISSUED:** 8/28/2018 **REFERENCE:** YL02-T353

# STATE REGULATIONS CALIFORNIA PROPOSITION 65

This product contains:	Chemical CAS#
*2-Mercaptobenzothiazole	149-30-4

## **Proposition 65 Key**

\* 🛕

**WARNING:** This product can expose you to a chemical(s), including those listed above, which is (are) known to the State of California to cause cancer.

For more information visit <u>WWWPROP65.CA.GOV</u>.

**WARNING:** This product can expose you to a chemical(s), including those listed above, which is (are) known to the State of California to cause birth defects or other reproductive harm.

For more information visit <u>WWWPROP65.CA.GOV</u>.

**WARNING:** This product can expose you to a chemical(s), including those listed above, which is (are) known to the State of California to cause cancer and birth defects or other reproductive harm.

For more information visit WWWPROP65.CA.GOV.

### **Massachusetts Right to Know**

This product contains	Chemical CAS#
Copper	7440-50-8
Zinc	7440-66-6
Amorphous Silica	112926-00-8
Silicon Dioxide	7631-86-9
Mica	12001-26-2
Iron Oxide	1309-37-1

### Pennsylvania Right to Know

This product contains	Chemical CAS#
Copper	7440-50-8
Zinc	7440-66-6
Amorphous Silica	112926-00-8
Silicon Dioxide	7631-86-9
Mica	12001-26-2
Pentaerythritol tetrakis	6683-19-8
Iron Oxide	1309-37-1
Tris(2,4-ditert-butylphenyl) phosphite	31570-04-4
2-Mercaptobenzothiazole	149-30-4



# New Jersey Right to Know

This product contains	Chemical CAS#
1,3,5-Triglycidyl Isocyanurate	2451-62-9
Copper	7440-50-8
Zinc	7440-66-6
Amorphous Silica	112926-00-8
Silicon Dioxide	7631-86-9
Mica	12001-26-2
Pentaerythritol tetrakis	6683-19-8
Iron Oxide	1309-37-1
Tris(2,4-ditert-butylphenyl) phosphite	31570-04-4
2-Mercaptobenzothiazole	149-30-4



# RDINAL SAFETY DATA SHEET

**ISSUED:** 8/28/2018 **REFERENCE:** YL02-T353

### **16. OTHER INFORMATION**

# **Other Product Information:**

% Volatile by Volume : 0.00 % Volatile by Weight : 0.00 % Solids by volume : 100.00 % Solids by Weight : 100.00

# **VOC CONTENT:**

Content tested per EPA METHOD 24, ASTM D2369 is less than 1% Wt/Wt.

### **HMIS RATING**

Health :	2
Flammability :	1
Reactivity:	0
Personal Protection :	E

## NFPA CODES



**MANUFACTURER DISCLAIMER:** The information contained in this Safety Data Sheet is considered to be true and accurate. Cardinal Paint and Powder makes no warranties, expressed or implied, as to the accuracy and adequacy of this information. This data is offered solely for the user's consideration, investigation and verification.